

IN THE CLAIMS:

Claims 1 - 16 (Canceled)

17. (Currently Amended) A satellite digital audio radio multipoint distribution system comprising:

a satellite antenna for receiving a satellite digital audio radio signal;

a terrestrial repeater connected to said antenna for decoding said satellite signal and recoding said signal into an XM radio terrestrial intermediate frequency (IF) multi-carrier modulated satellite radio terrestrial broadcast format signal, said repeater including:

a receiver and demodulator for down-converting the satellite digital audio radio signal to a TDM bitstream,

a de-interleaver and reformatter for re-ordering the TDM bitstream for a terrestrial waveform,

a terrestrial waveform modulator coupled to said de-interleaver and reformatter, and

means for recoding the output of said modulator to an IF frequency;

a system for distributing said recoded IF signal, and

plural satellite digital audio radio service receivers adapted to receive said recoded IF signal from said distributing system and provide an audio or visual output signal in response thereto.

Claims 18 – 20 (Canceled)

21. (Original) The invention of Claim 17 wherein each of said plural receivers includes a respective user interface to allow for channel selection and audio processing.

22. (Previously Presented) The invention of Claim 17 wherein each of said plural receivers includes a channel decoder integrated circuit adapted to receive said recoded signal and provide a digital bitstream output in response thereto.

23. (Original) The invention of Claim 22 wherein each of said plural receivers further includes a source decoder digital signal processor adapted to receive said digital bitstream and provide said output signal in response thereto.

24. (Original) The invention of Claim 17 wherein said distribution system is a cable distribution system.

25. (Original) The invention of Claim 17 wherein said distribution system is a wireless distribution system.

26. (Original) The invention of Claim 17 wherein said distribution system is a fiber-optic distribution system.

27. (Original) The invention of Claim 17 wherein said output signal is an audio output signal.

28. (Currently Amended) A method for distributing a satellite digital audio radio signal to multiple receivers including the steps of:

receiving a satellite digital audio radio signal and distributing an XM radio terrestrial intermediate frequency (IF) multi-carrier modulated recoded signal in response thereto using a repeater comprising:

a receiver and demodulator for down-converting the satellite digital audio radio signal to a TDM bitstream,  
a de-interleaver and reformatter for re-ordering the TDM bitstream for a terrestrial waveform,

a terrestrial waveform modulator coupled to said de-interleaver and reformatter, and

means for recoding the output of said modulator to an IF frequency and receiving said distributed recoded signal via plural receivers and providing plural output signals in response thereto.

29. (Currently Amended) A satellite digital audio radio multipoint distribution system comprising:

a satellite antenna for receiving a satellite digital audio radio signal;

a terrestrial repeater connected to said antenna for decoding said satellite signal and recoding said signal into an XM radio terrestrial intermediate frequency (IF) multi-carrier modulated satellite radio terrestrial broadcast format signal, said repeater including:

a receiver and demodulator for down-converting the satellite digital audio radio signal to a TDM bitstream,

a de-interleaver and reformatter for re-ordering the TDM bitstream for a terrestrial waveform,

a terrestrial waveform modulator coupled to said de-interleaver and reformatter, and

means for recoding the output of said modulator to an IF frequency; and

a system for distributing said recoded IF signal.

30. (Canceled)

31. (Previously Presented) The invention of Claim 17 wherein said satellite antenna, terrestrial repeater, system for distributing, and plural receivers are mounted on a single structure.

32. (Previously Presented) The invention of Claim 31 wherein said structure is mobile.

33. (Previously Presented) The invention of Claim 29 wherein said satellite antenna, terrestrial repeater, and system for distributing are mounted on a single structure.

34. (Previously Presented) The invention of Claim 33 wherein said structure is mobile.

35. (Previously Presented) The invention of Claim 28 wherein said steps of: receiving a satellite digital audio radio signal and distributing an XM radio terrestrial intermediate frequency (IF) multi-carrier modulated recoded signal in response thereto and receiving said distributed recoded signal via plural receivers are performed on a single structure.

36. (Previously Presented) The invention of Claim 35 wherein said structure is mobile.